## **Thesis statement/Annotated bibliography**

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**Thesis statement:** While the controversy about the possibilities of commercialization of lab-grown meat is still lively, this meat alternative should be developed and marketed as the main protein source because it addresses increasing global meat demand, mitigates environmental issues, and resembles conventional meat in taste and texture.

**The reason why I chose this thesis:** Climate change is widely deemed as the consequence of industrialization, but industrial activities are not the only factor. Bearing that in mind, I explored the food industry with a view to proving that the trivial things we eat every day can make a huge impact on the environment. In terms of food sustainability, lab-grown meat, or cultured meat, is considered to be more resource-efficient and healthier than conventional meat. I chose this thesis not only to examine cultured meat’s potential benefits but also to discover whether or not we will have a chance to try this novel meat product. At first, I was interested in the organic food market but after reading tons of research, I found it more mind-blowing to learn about the blessing of technology in food production.

**Relevance to business:** Market penetration of cultured meat can make a radical change to the food industry. Besides environmental influence, cell-based meat will meet the food demand of the increasing population and maintain food security. Food suppliers will change their technology, manufacturing process, and policy to adapt to new requirements of lab-grown meat, whereas consumers will have a wider range of dietary choices. Moreover, the introduction of new meat alternatives will provide more high-skilled jobs but also create agricultural unemployment. Furthermore, since producing cell-based meat is costly, a new regulatory system should be implemented to facilitate cell-based meat commercialization.

**What I already know and what I hope to learn:** To my knowledge, cultured meat was proposed by its sustainable resources and taste similarities compared to traditional meat, but I need to fact-check the statement since there is still a debate over this issue. While I had no prior knowledge related to food production and technology, this topic is going to be challenging yet thought-provoking for me. It is worth investigating cultured meat’s opportunities and drawbacks to predict customers’ preferences as well as its possibility to be brought into the market. Despite its unavailability, I would like to discover to what extent this type of meat addresses environmental issues.

## **Annotated Bibliography**

1. Bryant, C. & Barnett, J. (2020) ‘Consumer Acceptance of Cultured Meat: An Updated Review (2018–2020)’. *Applied sciences*. [Online] 10 (15), 5201–.

**Summary:** Over the period of 2 years, customers’ attitude towards cultured meat has shifted positively: they are more likely to accept alternative meat as a protein source. The review offers information about existing benefits and uncertainties of the product as well as the key patterns and barriers to acceptance from different societal perspectives. However, because cultured meat gained more preferences than before, the paper proposed some measures and emphasized essential qualities that contribute to the success of cultured meat commercialization.

**Analysis:** By synthesizing and analyzing over 400 research from 2018 to 2020, the mentioned review provided a comprehensive picture of how the consumers’ preferences had been changing and which factors influenced the change. Based on those conclusions, we can predict the future of the meat industry and adequately implement solutions to address the current obstacles.

**Reflection:** The findings can be helpful to back up my argument that cultured meat commodification will achieve success thanks to the increasing acceptance rate of customers, as long as pro-cultured meat messages and regulations are appropriately developed. Moreover, this review underscored environmental and sustainable opportunities for lab-grown meat which can support my main points in the thesis.

2. Bryant, C. J. (2020) ‘Culture, meat, and cultured meat’. *Journal of animal science*. [Online] 98 (8), 1–7.

**Summary:** While the concerns for cultured meat are usually related to technological advances and its taste and texture, social, religious, and cultural issues should be taken into consideration. Media coverage is demonstrated to influence the public attitude towards lab-grown meat, whereas different religions have different regulatory restrictions against meat consumption. In terms of economic issues, cultured meat development also has positive impacts on food supply but negative ones on agricultural employment and consumer inequality.

**Analysis:** The findings showed that media coverage in such huge markets as the USA or Europe tended to imbue a neutral or positive tone, thereby inducing positive behaviors of customers. Sample data collected from over 3000 religious citizens, including Judaism, Islam, Hinduism, and Buddhism, could generalize the perspective of the religious population to cultured meat. To solve religious issues, the paper suggested a label substitution for cultured meat.

**Reflection:** This article can sharpen my argument about how cultured meat can be widely accepted by both religious and non-religious populations. Given those data and analyses, I can claim that cultured meat commercialization will no longer be novel if we take advantage of the mass media and address the said social and economic challenges.

3. Choudhury, D. et al. (2020) ‘The Business of Cultured Meat’. *Trends in biotechnology (Regular ed.)*. [Online] 38 (6), 573–577.

**Summary:** Although cultured meat has not been launched into the market, its research and development process is carefully investigated and invested. The paper provides the current situation of cultured meat commercialization as well as the main challenges it has to overcome when entering the food market.

**Analysis:** A future proliferation of cultured meat can be expected from data, figures, and detailed information that the authors have mentioned. Challenges focus on social and technological aspects, but they were not meticulously analyzed as I expected.

**Reflection:** The current status of cultured meat can be useful for me to set a foundation for the ongoing commodifying stage in the thesis. Moreover, the challenge in growth media and consumer perception can work well to counter the argument about consumer acceptance related to social and cultural views I have mentioned above.

4. Hwang, J. et al. (2020) ‘Factors Affecting Consumers’ Alternative Meats Buying Intentions: Plant-Based Meat Alternative and Cultured Meat’. *Sustainability (Basel, Switzerland)*. [Online] 12 (14), 5662–.

**Summary:** While some argue that it is not worth investing in cultured meat, others support this idea. Therefore, this research focused on both positive and negative views toward alternative meat and compares factors that influence buying intentions. It also concluded that customers’ willingness to buy depended heavily on the perception of product and culture.

**Analysis:** The authors thoroughly examined five main factors that impacted meat buyers’ preferences: sustainability, food neophobia, food curiosity, unnaturalness, and distrust of biotech. Among them, sustainable practices were the driving force for cultured meat consumption, including lower demand for inputs and health and animal welfare enhancement. Besides, cultured meat marketers were warned against addressing peculiar phrases such as *made in the lab* to avoid customer resistance.

**Reflection:** Given the information, I can build strong arguments on how effectively cultured meat can tackle environmental issues compared to conventional meat, which is one of my main points. Furthermore, investigating the opinions of both sides and learning the reasons behind them might help substantiate the availability of commercialized lab-grown meat.

5. Slade, P. (2018) ‘If you build it, will they eat it? Consumer preferences for plant-based and cultured meat burgers’. *Appetite*. [Online] 125428–437.

**Summary:** This research also studied consumers’ meat buying habits based on demographic and attitudinal realities but discovered more about the correlation of preferences between different synthetic meat. By analyzing consumer behaviors, providers could solve the problem of cultured meat acceptance.

**Analyze:** Conducted by using a hypothetical choice experiment, the article demonstrates that alternative meat choices depend on age, sex, environmental and agricultural awareness, which are different from those factors from other articles. In terms of meat consumption, if prices are equivalent, meat-eaters tend to choose traditional beef burgers but the results will be changed radically if marketing and regulation sections adhere to new meat product’s requirements.

**Reflection:** Thanks to these findings, I can examine the customer preferences of different target markets from a demographic perspective, thereby adequately solving the problem of consumer acceptance and commercialization possibilities. Furthermore, by comparing the success of plant-based and cell-based meat, I can prove why cell-based meat can be a more profitable and effective investment.

6. Treich, N. (2021) ‘Cultured Meat: Promises and Challenges’. *Environmental & resource economics*. [Online] 79 (1), 33–61.

**Summary:** Pros and cons of cultured meat in terms of environmental, ethical, regulatory, and economic issues were extensively examined and analyzed in this paper. It also recommended some adaptations that the government, suppliers, and buyers should make to take advantage of benefits and overcome challenges.

**Analysis:** The author not only investigated every opportunity and drawback of cultured meat but also compared it to the traditional one to emphasize the need for a new alternative. He also viewed the novel meat commodification from both provider and consumer positions, creating a neutral point of view and a complete picture of cultured meat’s present and futuristic situation.

**Reflection:** This research contains abundant essential information about sustainable effects, the ability to meet increasing food demand, and moral issues. Utilizing these viewpoints in my thesis, I can build a solid base for my argument on underpinning cultured meat and reducing cultivated meat.